Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

identifying a subset of possible lines within a paragraph in a top-down pass ~~through~~ from the beginning to the end of the paragraph;

calculating for each of the possible lines a respective line-specific penalty, the line-specific penalty for each line being calculated without reference to any penalty calculated for any other line;

calculating a bottom-up accrued penalty for each of the possible lines in the subset of possible lines in a bottom-up pass from the end to the beginning of the paragraph, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph;

selecting a combination of the possible lines based on the bottom-up accrued penalties of ~~in a bottom-up pass through~~ the possible lines; and

specifying a layout for the paragraph according to the selected combination.

2. (Canceled)

3. (Currently Amended) The method of claim 1, wherein each of the possible lines yields a downward sequence of possible lines, the method further comprising:

~~calculating, in the top-down pass, a penalty for each of the possible lines;~~

calculating top-down accrued ~~accruing the~~ penalties over each of the downward

sequences of the possible lines in the top-down pass from the beginning to the end of ~~through~~ the
paragraph, each top-down accrued penalty for a particular line in a given sequence of lines being
calculated from the line-specific penalties of the particular line and all lines in the given
sequence of lines from the beginning of the paragraph to the particular line; and

before selecting the combination of the possible lines, excluding from the subset of
possible lines ~~pruning~~ the possible lines and associated sequences of possible lines for which the
top-down accrued penalty does not satisfy a benchmark penalty.

4. (Currently Amended) The method of claim 3, further comprising:

~~calculating the penalty for each of the possible lines as it is identified; and~~

terminating identification of additional possible lines in the downward sequence
associated with one of the possible lines in the event the top-down accrued penalty for the
respective possible line does not satisfy the benchmark penalty.

5. (Canceled)

6. (Currently Amended) The method of claim [[5]]1, wherein the line-specific penalty
calculation for each of the possible lines includes penalties based on the width of the respective
line relative to the width of an applicable baseline.

7. (Original) The method of claim 6, wherein the width of the applicable baseline varies
between different baselines.

8. (Original) The method of claim 7, wherein the size of text within the different baselines
varies.

9. (Currently Amended) The method of claim 1, wherein the paragraph is contained within a
paragraph cell having an arbitrary shape.

10. (Currently amended) A computer-readable medium carrying program code operable to cause
a programmable processor to:

      identify a subset of possible lines within a paragraph in a top-down pass from the
beginning to the end of ~~through~~ the paragraph;

      calculate for each of the possible lines a respective line-specific penalty, the line-specific
penalty for each line being calculated without reference to any penalty calculated for any other
line;

      calculate a bottom-up accrued penalty for each of the possible lines in the subset of
possible lines in a bottom-up pass from the end to the beginning of the paragraph, each bottom-
up accrued penalty for a particular line being calculated from the line-specific penalties of the
particular line and all lines in an optimal sequence of lines from the particular line to the end of
the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty
for any preceding line in the paragraph;

      select a combination of the possible lines based on the bottom-up accrued penalties of ~~in~~
~~a bottom-up pass through~~ the possible lines; and

      specify a layout for the paragraph according to the selected combination.

11. (Canceled)

12.   (Currently Amended) The computer-readable medium of claim 10, wherein each of the
possible lines yields a downward sequence of possible lines, and ~~the~~ program code is operable to
cause a programmable processor to:

      ~~calculate, in the top-down pass, a penalty for each of the possible lines;~~

      calculate top-down accrued ~~accrue the~~ penalties over each of the downward sequences of
the possible lines in the top-down pass from the beginning to the end of ~~through~~ the paragraph,
each top-down accrued penalty for a particular line in a given sequence of lines being calculated

from the line-specific penalties of the particular line and all lines in the given sequence of lines from the beginning of the paragraph to the particular line; and

before selecting the combination of the possible lines, exclude from the subset of possible lines prune the possible lines and associated sequences of possible lines for which the top-down accrued penalty does not satisfy a benchmark penalty.

13. (Currently Amended) The computer-readable medium of claim 12, wherein the program code is operable to cause a programmable processor to:

calculate the penalty for each of the possible lines as it is identified; and

terminate identification of additional possible lines in the downward sequence associated with one of the possible lines in the event the top-down accrued penalty for the respective possible line does not satisfy the benchmark penalty.

14. (Canceled)

15. (Currently Amended) The computer-readable medium of claim [[14]]10, wherein the line-specific penalty calculation for each of the possible lines includes penalties based on the width of the respective line relative to the width of an applicable baseline.

16. (Original) The computer-readable medium of claim 15, wherein the width of the applicable baseline varies between different baselines.

17. (Original) The computer-readable medium of claim 16, wherein the size of text within the different baselines varies.

18. (Currently Amended) The computer-readable medium of claim 1, wherein the paragraph is contained within a paragraph cell having an arbitrary shape.

19. (Currently Amended) A system comprising:

means for identifying a subset of possible lines within a paragraph in a top-down pass ~~through~~ from the beginning to the end of the paragraph;

means of calculating for each of the possible lines a respective line-specific penalty, the line-specific penalty for each line being calculated without reference to any penalty calculated for any other line;

means of calculating a bottom-up accrued penalty for each of the possible lines in the subset of possible lines in a bottom-up pass from the end to the beginning of the paragraph, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph;

means for selecting a combination of the possible lines based on the bottom-up accrued penalties of ~~in a bottom-up pass through~~ the possible lines; and

means for specifying a layout for the paragraph according to the selected combination.

20. (Canceled)

21. (Currently Amended) The system of claim 19, wherein each of the possible lines yields a downward sequence of possible lines, the system further comprising:

~~means for calculating, in the top-down pass, a penalty for each of the possible lines;~~

means for calculating top-down accrued ~~accruing the~~ penalties over each of the downward sequences of the possible lines in the top-down pass from the beginning to the end of ~~through~~ the paragraph, each top-down accrued penalty for a particular line in a given sequence of lines being calculated from the line-specific penalties of the particular line and all lines in the given sequence of lines from the beginning of the paragraph to the particular line; and

means for excluding from the subset of the possible lines pruning, before selecting the combination of the possible lines, the possible lines and associated sequences of possible lines for which the top-down accrued penalty does not satisfy a benchmark penalty.

22. (Currently Amended) The system medium of claim 21, further comprising:

      means for calculating the penalty for each of the possible lines as it is identified; and

      means for terminating identification of additional possible lines in the downward sequence associated with one of the possible lines in the event the top-down accrued penalty for the respective possible line does not satisfy the benchmark penalty.

23-24. (Canceled)

25. (Currently Amended) The system of claim 1924, wherein the line-specific penalty calculation for each of the possible lines includes penalties based on the width of the respective line relative to the width of an applicable baseline.

26. (Original) The system of claim 25, wherein the width of the applicable baseline varies between different baselines.

27. (Original) The system of claim 26, wherein the size of text within the different baselines varies.

28. (Currently Amended) The system of claim 19, wherein the paragraph is contained within a paragraph cell having an arbitrary shape.

29. (Currently Amended) A method comprising:

      identifying a subset of possible lines within a paragraph in a top-down pass through the paragraph, each of the possible lines yielding a downward sequence of additional possible lines;

calculating, in the top-down pass, a line-specific penalty for each of the possible lines, the line-specific penalty for each line being calculated without reference to any penalty calculated for any other line independently of the other lines;

calculating top-down accrued accruing the penalties over each of the downward sequences of the possible lines in the top-down pass, each top-down accrued penalty for a particular line in a given sequence of lines being calculated from the line-specific penalties of the particular line and all lines in the given sequence of lines from the beginning of the paragraph to the particular line;

excluding from the subset of possible lines pruning the possible lines and associated sequences of possible lines for which the top-down accrued accrued penalty does not satisfy a benchmark penalty;

selecting a combination of the possible lines remaining in the subset of possible lines after the pruning in a bottom-up pass through the possible lines based on bottom-up accrued penalties accrued over upward sequences of the possible lines, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph; and

specifying a layout for the paragraph according to the selected combination.

30. (Canceled)

31. (Currently Amended) The method of claim 29, wherein the line-specific penalty calculation for each of the possible lines includes penalties based on the width of the respective line relative to the width of an applicable baseline.

32. (Original) The method of claim 31, wherein the width of the applicable baseline varies between different baselines.

33. (Currently amended) A computer readable medium carrying program code operable to cause a programmable processor to:

  identify a subset of possible lines within a paragraph in a top-down pass through the paragraph, each of the possible lines yielding a downward sequence of additional possible lines;

  calculate, in the top-down pass, a line-specific penalty for each of the possible lines, the line-specific penalty for each line being calculated without reference to any penalty calculated for any other line independently of the other lines;

  calculate top-down accrued accrue the penalties over each of the downward sequences of the possible lines in the top-down pass, each top-down accrued penalty for a particular line in a given sequence of lines being calculated from the line-specific penalties of the particular line and all lines in the given sequence of lines from the beginning of the paragraph to the particular line;

  exclude from the subset of possible lines prune the possible lines and associated sequences of possible lines for which the top-down accrued accrued penalty does not satisfy a benchmark penalty;

  select a combination of the possible lines remaining in the subset of possible lines after the pruning in a bottom-up pass through the possible lines based on bottom-up accrued penalties accrued over upward sequences of the possible lines, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph; and

  specify a layout for the paragraph according to the selected combination.

34. (Currently Amended) The computer-readable medium of claim 33, wherein the program code is operable to cause a programmable processor to:

  calculate the penalty for each of the possible lines as it is identified; and

  terminate identification of additional possible lines in the downward sequence associated

with one of the possible lines in the event the top-down accrued penalty for the respective
possible line does not satisfy the benchmark penalty.

35. (Currently Amended) The computer-readable medium of claim 33, wherein the line-specific
penalty calculation for each of the possible lines includes penalties based on the width of the
respective line relative to the width of an applicable baseline.

36. (Original) The computer-readable medium of claim 33, wherein the width of the applicable
baseline varies between different baselines.

37. (Currently amended) A system comprising:

        means for identifying a subset of possible lines within a paragraph in a top-down pass
through the paragraph, each of the possible lines yielding a downward sequence of additional
possible lines;

        means for calculating, in the top-down pass, a line-specific penalty for each of the
possible lines, the line-specific penalty for each line being calculated without reference to any
penalty calculated for any other line independently of the other lines;

        means for calculating top-down accrued accruing the penalties over each of the downward
sequences of the possible lines in the top-down pass from the beginning to the end of the
paragraph, each top-down accrued penalty for a particular line in a given sequence of lines being
calculated from the line-specific penalties of the particular line and all lines in the given
sequence of lines from the beginning of the paragraph to the particular line;

        means for excluding from the subset of possible lines pruning the possible lines and
associated sequences of possible lines for which the top-down accrued accrued penalty does not
satisfy a benchmark penalty;

        means for selecting a combination of the possible lines remaining in the subset of
possible lines after the pruning in a bottom-up pass through the possible lines based on bottom-
up accrued penalties accrued over upward sequences of the possible lines, each bottom-up

accrued penalty for a particular line being calculated from the line-specific penalties of the
particular line and all lines in an optimal sequence of lines from the particular line to the end of
the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty
for any preceding line in the paragraph; and

      means for specifying a layout for the paragraph according to the selected combination

38. (Currently Amended) The system of claim 37, further comprising:

~~means for calculating the penalty for each of the possible lines as it is identified; and~~

      means for terminating identification of additional possible lines in the downward
sequence associated with one of the possible lines in the event the top-down accrued penalty for
the respective possible line does not satisfy the benchmark penalty.

39. (Currently Amended) The system of claim 37, wherein the line-specific penalty calculation
for each of the possible lines includes penalties based on the width of the respective line relative
to the width of an applicable baseline.

40. (Original) The system of claim 37, wherein the width of the applicable baseline varies
between different baselines.

41. (Currently Amended) A method comprising:

      defining a paragraph cell for layout of a paragraph, the paragraph cell including a
sequence of baselines for placement of lines of text information, wherein at least some of the
baselines have different widths;

      identifying a subset of possible lines within the paragraph in a top-down pass through the
paragraph, each of the possible lines being characterized by a line-start and yielding a downward
sequence of additional possible lines at the baselines within the paragraph;

      calculating, in the top-down pass, a line-specific penalty for each of the possible lines, the
line specific penalty for each line being calculated without reference to any penalty calculated for

any other line;

calculating top-down accrued accruing the penalties over each of the downward sequences of the possible lines in the top-down pass through the paragraph, each top-down accrued penalty for a particular line in a given sequence of lines being calculated from the line-specific penalties of the particular line and all lines in the given sequence of lines from the beginning of the paragraph to the particular line;

excluding from the subset of possible lines pruning the possible lines and associated downward sequences of possible lines for which the top-down accrued penalty does not satisfy a benchmark penalty;

selecting a combination of the possible lines remaining in the subset of possible lines after the pruning in a bottom-up pass through the possible lines based on bottom-up accrued penalties accrued over upward sequences of the possible line, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph; and

specifying a layout for the paragraph according to the selected combination.

42. (Currently Amended) A computer readable medium carrying program code operable to cause a programmable processor to:

define a paragraph cell for layout of a paragraph, the paragraph cell including a sequence of baselines for placement of lines of text information, wherein at least some of the baselines have different widths;

identify a subset of possible lines within the paragraph in a top-down pass through the paragraph, each of the possible lines being characterized by a line-start and yielding a downward sequence of additional possible lines at the baselines within the paragraph;

calculate, in the top-down pass, a line-specific penalty for each of the possible lines, the line specific penalty for each line being calculated without reference to any penalty calculated for

any other line;

calculate top-down accrued accruing the penalties over each of the downward sequences of the possible lines in the top-down pass through the paragraph, each top-down accrued penalty for a particular line in a given sequence of lines being calculated from the line-specific penalties of the particular line and all lines in the given sequence of lines from the beginning of the paragraph to the particular line;

exclude from the subset of possible lines pruning the possible lines and associated downward sequences of possible lines for which the top-down accrued penalty does not satisfy a benchmark penalty;

select a combination of the possible lines remaining in the subset of possible lines after the pruning in a bottom-up pass through the possible lines based on bottom-up accrued penalties accrued over upward sequences of the possible line, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph; and

specify a layout for the paragraph according to the selected combination.

43. (Currently Amended) A method comprising:

identifying a subset of the possible lines within a paragraph in a top-down pass through the paragraph;

selecting a combination of the possible lines from the identified subset in a bottom-up pass through the subset of possible lines, including calculating a bottom-up accrued penalty for each of the possible lines in the subset of possible lines, each bottom-up accrued penalty for a particular line being calculated from line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, wherein a line-specific penalty for each line is calculated without reference to any other line, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the

paragraph; and

specifying a layout for the paragraph according to the selected combination

44. (Currently Amended) A computer readable medium carrying program code operable to cause a programmable processor to:

identify a subset of the possible lines within a paragraph in a top-down pass through the paragraph;

select a combination of the possible lines from the identified subset in a bottom-up pass through the subset of possible lines, including code to calculate a bottom-up accrued penalty for each of the possible lines in the subset of possible lines, each bottom-up accrued penalty for a particular line being calculated from line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, wherein a line-specific penalty for each line is calculated without reference to any other line, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph; and

specify a layout for the paragraph according to the selected combination.

45. (Currently Amended) A method comprising:

defining a paragraph layout for a paragraph of text, including:[[;]]

identifying a subset of possible lines within a paragraph in a top-down pass from the beginning to the end of the paragraph;

calculating for each of the possible lines a respective line-specific penalty, the line-specific penalty for each line being calculated without reference to any penalty calculated for any other line;

calculating a bottom-up accrued penalty for each of the possible lines in the subset of possible lines in a bottom-up pass from the end to the beginning of the paragraph, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the

end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph;

        selecting a combination of the possible lines based on the bottom-up accrued penalties of the possible lines; and

        specifying a layout for the paragraph according to the selected combination;

        ~~identifying possible lines within a paragraph in a top-down pass through the paragraph; and~~

detecting a change to the paragraph of text, wherein the change includes at least one of a change to the text and a change to a paragraph cell in which the text is positioned; and

~~globally~~ redefining the paragraph layout in real time in response to the detected change, including:

        recalculating line-specific penalties only for lines that change as a result of the change to the paragraph of text;

        calculating a bottom-up accrued penalty for each of the possible lines in the subset of possible lines in a bottom-up pass from the end to the beginning of the paragraph, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph;

        selecting a combination of the possible lines based on the bottom-up accrued penalties of the possible lines; and

        specifying a layout for the paragraph according to the selected combination.

46. (Original) The method of claim 45, wherein the change includes at least one of an addition, deletion, and modification of the text.

47. (Original) The method of claim 45, wherein the change includes at least one of a change in the size and shape of the paragraph cell.

48. (Original) The method of claim 45, wherein the change includes at least one of the addition, deletion, and modification of imagery within the paragraph cell.

49.   (Canceled)

50.   (Currently Amended) A computer readable medium carrying program code operable to cause a programmable processor to:

define a paragraph layout for a paragraph of text, including code operable to cause a programmable processor to:[[;]]

identify a subset of possible lines within a paragraph in a top-down pass from the beginning to the end of the paragraph;

calculate for each of the possible lines a respective line-specific penalty, the line-specific penalty for each line being calculated without reference to any penalty calculated for any other line;

calculate a bottom-up accrued penalty for each of the possible lines in the subset of possible lines in a bottom-up pass from the end to the beginning of the paragraph, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph;

select a combination of the possible lines based on the bottom-up accrued penalties of the possible lines; and

specify a layout for the paragraph according to the selected combination;

identify possible lines within a paragraph in a top-down pass through the paragraph; and

detect a change to the paragraph of text, wherein the change includes at least one of a change to the text and a change to a paragraph cell in which the text is positioned; and

globally-redefine the paragraph layout in real time in response to the detected change,

including code operable to cause a programmable processor to:

      recalculate line-specific penalties only for lines that change as a result of the change to the paragraph of text;

      calculate a bottom-up accrued penalty for each of the possible lines in the subset of possible lines in a bottom-up pass from the end to the beginning of the paragraph, each bottom-up accrued penalty for a particular line being calculated from the line-specific penalties of the particular line and all lines in an optimal sequence of lines from the particular line to the end of the paragraph, each bottom-up accrued penalty being calculated without reference to any penalty for any preceding line in the paragraph;

      select a combination of the possible lines based on the bottom-up accrued penalties of the possible lines; and

      specify a layout for the paragraph according to the selected combination.

51. (Original) The computer readable medium of claim 50, wherein the change includes at least one of an addition, deletion, and modification of the text.

52. (Original) The computer readable medium of claim 50, wherein the change includes at least one of a change in the size and shape of the paragraph cell.

53. (Original) The computer readable medium of claim 50, wherein the change includes at least one of the addition, deletion, and modification of imagery within the paragraph cell.

54-58. (Canceled)